Compact Media Converter TP/BNC 50-ohm

Converts twisted-pair to 50-ohm coax cable.

This converter uses already-installed 50-ohm analog cable, so you won't have to re-cable.

FCC and Industry Canada RF Interference Statements

Class A Digital Device. This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. If this equipment does cause harmful interference to radio or telephone reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an experienced radio/TV technician for help.

CAUTION
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To meet FCC requirements, shielded cables and power cords are required to connect this device to a personal computer or other Class A certified device.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Certifications

UL/CUL: Listed to Safety of Information Technology Equipment, including Electrical Business Equipment.

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| **Class 1 Laser product, Luokan 1 Laserlaite,** |
| **Laser Klasse 1, Appareil A'Laser de Classe** |

European Directive 2002/96/EC (WEEE) requires that any equipment that bears this symbol on product or packaging must not be disposed of with unsorted municipal waste. This symbol indicates that the equipment should be disposed of separately from regular household waste. It is the consumer's responsibility to dispose of this and all equipment so marked through designated collection facilities appointed by government or local authorities. Following these steps through proper disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about proper disposal, please contact local authorities, waste disposal services, or the point of purchase for this equipment.
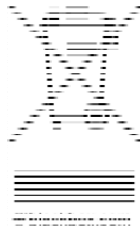
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1. Specifications

Environmental

Operating Temperature:	+32°F to +122°F (0°C to +50°C)
Storage Temperature:	-4°F to +158°F (-20°C to +70°C)
Humidity:	5 to 90% (non-condensing)
Input Specifications:	100-240 ±10% V AC, 50/60Hz, 1/0.5A

2. Overview: About the Compact Media Converter TP/BNC 50-ohm

With the Compact Media Converter TP/BNC, 50-ohm coax cable installations become more accessible.

The Compact Media Converter TP/BNC is a 10 Mbps Ethernet Twisted Pair to 50-ohm Coax cable (e.g. RG-59) Media Converter, that allows the continued use of the already-installed 50-ohm analog cable, eliminating the need to re-cable. As a low-cost, IEEE 802.3 single-conversion, 1U high, standalone media converter, the Compact Media Converter TP/BNC converter 10Base-T twisted pair to 10Base-2 thin coax and includes one RJ-45 connector and one RG-49 BNC connector. Each Compact Media Converter TP/BNC includes diagnostic LEDs and an internal 100/240 V AC power supply.

Part Number

Part Number	Description
LMC009A-R5	Compact Media Converter TP/BNC 50-ohm

3.   Install the Compact Media Converter TP/BNC 50-ohm

The Compact Media Converter TP/BNC converters come ready to install. Deploy Compact Media Converter TP/BNC units in pairs, or connect a Compact Media Converter TP/BNC converter to another Black Box converter. To install a Compact Media Converter TP/BNC converter, first make sure that the unit is placed on a flat surface. Attach the cables between the Compact Media Converter TP/BNC and each device that will be interconnect, the plug the unit into a reliable, filtered power source. Make sure to connect the BNC port of the Compact Media Converter TP/BNC converter only to 50-ohm coaxial cable.

When connecting an Ethernet cable to the Compact Media Converter TP/BNC, make sure the cable corresponds to the Crossover/Pass-Through switch. When using the Crossover cable, make sure the switch is out, in the "X" setting. The switch can be pressed again to change the setting.

4. Operation

4.1 Compact Media Converter TP/BNC 50-ohm Front Panel

The LEDs

Each Compact Media Converter TP/BNC features diagnostic LEDs. The following illustration shows the location of the LEDs, and other features, on the Compact Media Converter TP/BNC. The LED functions for the Compact Media Converter TP/BNC are as follows:

TP LNK/ACT   Glows yellow when a twisted pair link is established and flickers when data is being received

BNC ACT   Flickers green in normal operation indicating activity on the BNC port

BNC COL   Flickers red in normal operation indicating activity on the BNC segment

POWER   Flickers yellow when the unit is receiving power
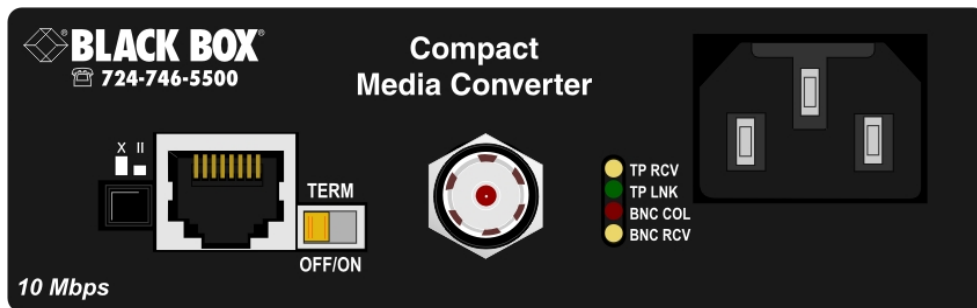
4.2 Twisted Pair Crossover/Pass-Through Switch

The twisted pair port on the Compact Media Converter TP/BNC features a push-button switch, located next to the twisted pair connector, for selecting a crossover workstation connection or Pass-Through repeater/hub connection. Select a Pass-Through connection by pressing the push-button IN. A Crossover connection is selected when the push-button is OUT. If uncertain whether a Crossover or Pass-Through connection is needed, set the push-button to the position that makes the TP LNK (link) LED glow.

4.3 BNC Port Termination

The Compact Media Converter TP/BNC features a 2-position, termination switch (TERM) next to the BNC connector that allows a think coaxial segment to be terminated at the port without the use of an external 'T' connector/terminator. (See the diagram in the Compact Media Converter TP/BNC 50-ohm Front Panel section.)

If a 'T' connector/terminator is used, this switched must be set in the OFF (disabled) position. Otherwise, double termination will result, which will corrupt the signal.

5. Contacting Black Box

Black Box Customer Service

Order toll-free in the U.S.: Call 877-877-BBOX
(outside U.S. call 724-746-5500)

Free technical support, 24 hours a day, 7 days a week.
Call: 724-746-5500 or Fax: 724-746-0746

Mail order: Black Box Corporation
1000 Park Drive, Lawrence, PA 15055-1018

Web site: www.blackbox.com

E-mail: info@blackbox.com

6. Fiber Optic Cleaning Guidelines

Fiber Optic transmitters and receivers are extremely susceptible to contamination by particles of dirt or dust, which can obstruct the optic path and cause performance degradation. Good system performance requires clean optics and connector ferrules.

1. Use fiber patch cords (or connectors, if you terminate your own fiber) only from a reputable supplier; low-quality components can cause many hard-to-diagnose problems in an installation.

2. Dust caps are installed at Black Box to ensure factory-clean optical devices. These protective caps should not be removed until the moment of connecting the fiber cable to the device. Should it be necessary to disconnect the fiber device, reinstall the protective dust caps.

3. Store spare caps in a dust-free environment such as a sealed plastic bag or box so that when reinstalled they do not introduce any contamination to the optics.

4. If you suspect that the optics have been contaminated, alternate between blasting with clean, dry, compressed air and flushing with methanol to remove particles of dirt.

7.   Electrostatic Discharge Precautions

Electrostatic discharge (ESD) can cause damage to any product, add-in modules or stand alone units, containing electronic components. Always observe the following precautions when installing or handling these kinds of products.

1. Do not remove unit from its protective packaging until ready to install.

2. Wear an ESD wrist grounding strap before handling any module or component. If the wrist strap is not available, maintain grounded contact with the system unit throughout any procedure requiring ESD protection.

3. Hold the units by the edges; do not touch the electronic components or gold connectors.

4. After removal, always place the boards on a grounded, static-free surface, ESD pad or in a proper ESD bag. Do not slide the modules or stand alone units over any surface.

WARNING! Integrated circuits and fiber optic components are extremely susceptible to electrostatic discharge damage. Do not handle these components directly unless you are a qualified service technician and use tools and techniques that conform to accepted industry practices.

About Black Box

Black Box Network Services is your source for more than 118,000 networking and infrastructure products. You'll find everything from cabinets and racks and power and surge protection products to media converters and Ethernet switches all supported by free, live 24/7 Tech support available in 20 seconds or less.

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